

**Remarks**

Claims 1-22 are pending in the application.

Claims 21 and 22 stand allowed.

Claims 5, 15, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1 and 10 were objected to because of various informalities.

Claims 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 807 989 A1.

Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,351,499 issued to Paulraj et al. on February 26, 2002 in view of United States Patent No. 5,982,327 issued to Vook et al. on November 9, 1999.

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

**Objection to Claims**

Claims 1 and 10 were objected to because of various informalities.

Claim 1 was objected to because of the phrase "there may exist".

This ground of rejection is respectfully traversed for the following reason.

The phrase is being used to describe the environment in which the transmitter is suitable to operate. The transmitter may operate in an environment in which there exists correlation in the signals that are received. Implicit in such a recitation is the fact that the transmitter may also operate in an environment in which there does not exist correlation in the signals that are received. Thus, the phraseology distinguishes the transmitter method from those that are only suitable to operate only when there is, or only when there isn't, correlation in the signals that are received. The Office Action's suggested correction would unduly limit the claim and is inappropriate.

Claim 10 was amended as suggested by the Examiner.

#### **Prior Art-based Rejections**

Claims 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 807 989 A1.

Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,351,499 issued to Paulraj et al. on February 26, 2002 in view of United States Patent No. 5,982,327 issued to Vook et al. on November 9, 1999.

These grounds of rejections are avoided for the following reasons.

All of applicants' claims that are rejected based on prior art, as now presented, recite the use of interference covariance matrix to compute the weights. None of the cited references teaches to employ interference covariance matrix in computing the weights. It should be noted that while some of the references compute the covariance matrix of signals, that is quite different from the interference covariance matrix. All of the cited references are limited to environments where the noise is considered to be white noise. However, use of the interference covariance matrix, as recited in applicants' claims, allows the invention to be employed in an environment in which the noise is not white.

Thus, all of applicants' claims are now allowable over the cited references, individually or in combination.

**Conclusion**

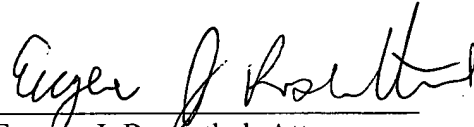
It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, he is invited to call applicant's attorney so that arrangements may be made to discuss and resolve any such issues.

In the event that an extension of time is required for this amendment to be considered timely, and a petition therefor does not otherwise accompany this amendment, any necessary extension of time is hereby petitioned for, and the Commissioner is authorized to charge the appropriate cost of such petition to the **Lucent Technologies Deposit Account No. 12-2325**.

Respectfully,

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